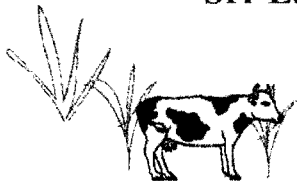


# SCOR MONITOR

International Irrigation Management Institute,  
Sri Lanka Country Programme



Shared Control of Natural Resources

Volume 1

No.1

January-March 1994

## SCOR GETS OFF THE GROUND

### Watershed management

**Programme to increase user's share of natural resources**

**USAID million grant**

**integrated approach**

Speaking at the inauguration, Terrence also collaborating with SLFO on a research project.

CONTENTS	
<i>Rationale and Concepts</i>	2
<i>Goal and Purpose</i>	2
<i>SCOR Objectives</i>	2
<i>SCOR Inauguration</i>	3
<i>Simulation Planning for SCOR Implementation</i>	4
<i>Huruluwewa Watershed</i>	4
<i>Upper Nilwala Watershed</i>	5
<i>Diary of Events</i>	6
<i>"Collaboration" as a Driving Force</i>	6
<i>Agro - well Study in Huruluwewa Watershed</i>	7
<i>SCOR National Steering Committee in Session at the Watershed</i>	7
<i>SCOR Watershed Teams Undertake Participatory Resource Use Mapping</i>	8

The Shared Control of Natural Resources (SCOR) Project, the first project ever in Sri Lanka, to focus attention on the watershed as the basic unit of planning and implementation, is now in operation.

The Project was designed by a core group of senior government and non-government officials through intensive participatory interaction among resource users, national, provincial and field level officials and selected resource persons both national and international. This unique design process was facilitated by the Sri Lanka Field Operations (SLFO) of

the International Irrigation Management Institute (IIMI).

SCOR is approved by the Government of Sri Lanka and sponsored by the Ministry of Forestry, Irrigation and Mahaweli Development and the Ministry of Lands in association with the Ministries of Agricultural Development and Research, Environment, Policy Planning and Implementation and Public Administration and Provincial Councils. It is funded by the United States Agency for International Development (USAID) through a cooperative agreement with the IIMI.

The implementation of SCOR is facilitated through multidisciplinary teams placed in two pilot watersheds working in close collaboration with National, Provincial, Divisional and field level agencies, non-governmental agencies and resource user groups.

## RATIONALE AND CONCEPTS

The Government of Sri Lanka has recognized the urgent need for more intensive, but environmentally appropriate, utilization of its natural resources bases, particularly land and water resources, for profitable and sustainable agricultural and related industrial production. Many efforts at fulfilling this need are already underway. However, four types of major constraints inhibit these efforts.

- The lack of a production environment that permits the resource user to effectively manage the combination of resources essential to maximize economic production;
- The lack of an effective combination of education, incentives and mechanisms to enforce penalties that induce internalization of environmental considerations into management decisions;
- The lack of adequate information about the land and water resources at appropriate levels;
- Institutional constraints including inadequate co-ordination among projects/activities of land and water resources development.

Over a 6-year project duration, SCOR project will attempt to overcome the above constraints.

There is an increasing body of evidence from Sri Lanka and other Asian countries that farmers, even those with very small holdings, make production responses to the economic environment within which they carry out their agricultural activities. These responses are influenced by the degree of control the farmers can exercise over their means of production, and the availability of information about market conditions and opportunities, and the necessary supporting services.

Increasing user share of control over natural resources through group action and their active participation in making management decisions are widely recognized as vital pre-requisites to improving management of these resources. Interventions aimed at improving natural resource management through local control yield high rates of return.

SCOR will build on the progress already made in Sri Lanka in land and water management and, apply an organizational approach on a watershed basis, and demonstrate the appropriateness of the approach in selected provinces of Sri Lanka, chosen for their different socio-economic, agricultural and environmental characteristics.

## GOAL AND PURPOSE

The goal of SCOR is to increase the productivity of the natural resources base in Sri Lanka to improve people's livelihoods on a sustainable basis. The Project will seek to increase user share of control over natural resources in selected watersheds through partnerships based on formal agreements between the state and the users which contribute to greater production while conserving the natural resource base.

The Project is designed to strike a balance between production and protection of natural resources in relation to the utilization of land and water in selected watersheds. This is to be achieved through the intensification and institutionalization of participatory processes coupled with appropriate technologies.

## SCOR OBJECTIVES

1. To ensure productivity and sustainability of land and water resources through
  - improved incentives and institutional arrangements;

- appropriate production and protection technologies;
  - state-user partnerships.
2. To get resource user groups and officials to:
    - consider environmental implications of land and water use;
    - internalize environmental implications in decision making and implementation.
  3. To enhance government, user groups, and users understanding on potentials of resources base for production and protection.
  4. To strengthen the capacity of the government authorities (national, provincial, and divisional) in planning for resources use in an integrated manner, gradually transforming the strategy of development of land and water resources from "project" to "programme" mode.

SCOR will be implemented in two phases over the next six years in pilot watersheds in the North Central Province and the Southern Province, covering an area of 30,000 ha. Two and a half million US\$ have been allocated for the first phase of the Project. During the two-year phase, work will begin in the two watersheds of Huruluwewa and Nilwala.

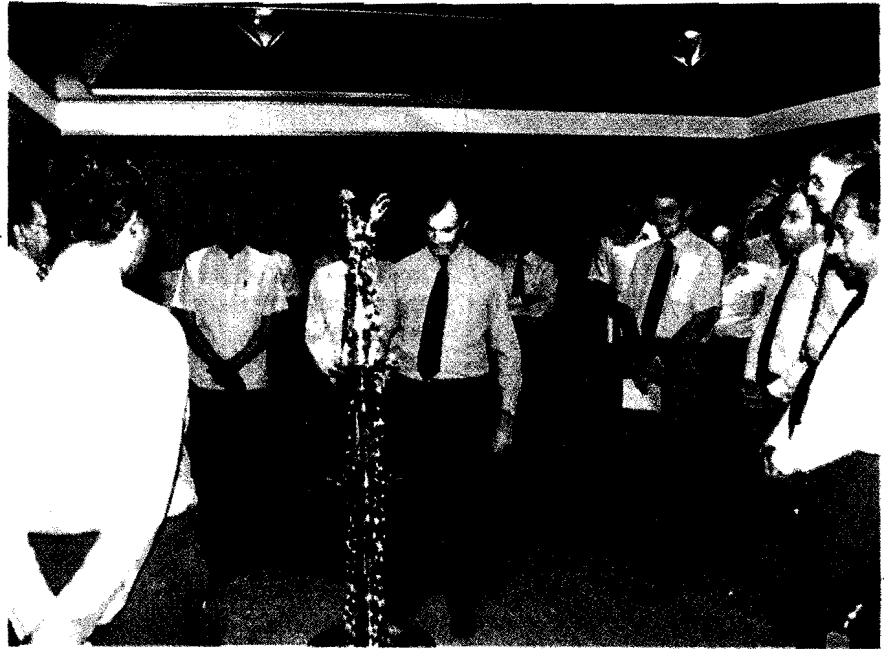
The IIMI team facilitates the planning and implementation of specific project activities by the resources users, relevant state agencies and NGOs in the selected geographic areas within the micro watersheds under the direction of Watershed Resources Management Teams (WRMT) established at the watershed level, the National Steering Committee (NSC) at national level and the Provincial Steering Committee (PSC) at provincial level. SCOR will follow a learning process approach in the planning and implementation of the project.

## SCOR INAUGURATION

SCOR was officially inaugurated on 23 September 1993. Speaking at the inauguration, Mr. D.G. Premachandra, Secretary, Ministry of Forestry, Irrigation & Mahaweli Development said that he hoped SCOR would help capture the "spirit" of the by-gone era when resources were used efficiently and in harmony with nature. He also said that ad-hoc exploitation of natural resources was a recent phenomenon and that in the past, farmers would only take from nature what they needed and no more.

Mr Terrance Liercke, Director of USAID in Sri Lanka said that SCOR will provide an "excellent opportunity to put into practice ideals and principles" that formed the core of USAID. He added that similar programs where control of natural resources was shared with user groups were extremely successful in Peru, Costa Rica, Russia, and several other countries.

Dr Roberto Lenton, Director-General, IIMI, said that SCOR's mission concurred with the three goals that defined IIMI's mission. He stated



**SCOR Inauguration by IIMI Director-General, Dr. Roberto Lenton**

that the Institute's goals were to: generate knowledge to improve irrigation management and policy making; strengthen national research capacity in the field of irrigation management; and support the introduction of improved management and policy making. Mr Nanda Abeywickrama, Director,

International Cooperation, IIMI, said that SCOR is not an isolated event. It represents the latest development in the continuum of efforts contributed by the farmer community, the government and non-governmental personnel including researchers (both local and international) of different disciplines, in developing approaches to the management of natural resources in the country. He further stated that a basic philosophy that should govern the interphase between man and his natural environment, developed with the assistance of Dr. Henry West (UK) in 1978, and adopted by the then Ministry in charge of the management and development of natural resources in the rural sector, guided the above efforts.

Dr C.M. Wijayarathna, Head, IIMI/SLFO & SCOR Project Leader, said that SCOR firstly contributes to all the three major goals of IIMI; Secondly, it assists in the implementation of the declared Government Policy particularly on devolution of control, and thirdly it contributes to all the three mission strategic objectives of the USAID specified under economic growth,



**Inauguration of SCOR field office by a farmer representative**

environment and democracy.

Mr C.H.de A.Jayasinghe, Director Projects, Ministry of Agricultural Development and Research, referred to the complex relationship between man and natural resources. Several pilot projects implemented by the Ministry have shown that people are willing to get involved in the management of natural resources.

The Chairman of the Central Environmental Authority, Mr G.K. Amaratunge said that delineating watershed areas as units of operation of SCOR will facilitate in the implementation of policies for the conservation of natural resources now formulated by the Ministry of Environment.

The Secretary to the Ministry of Lands, Mr O.C.Jayawardena, also spoke at the inauguration.

### SIMULATION PLANNING FOR SCOR IMPLEMENTATION

Following the inauguration, SCOR held a series of planning workshops for the SCOR teams in Colombo as well as in Huruluwewa and Nilwala watersheds.

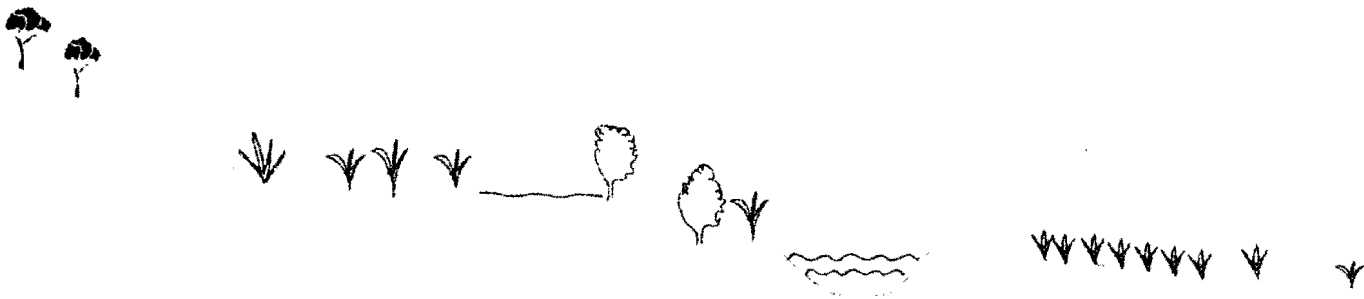
During these workshops, the SCOR teams reviewed technical studies of resource use pattern of the two watersheds, identified the priority geographical locations (sub watersheds) in which SCOR operated initially and define major

themes on interventions under which activities were to be implemented.

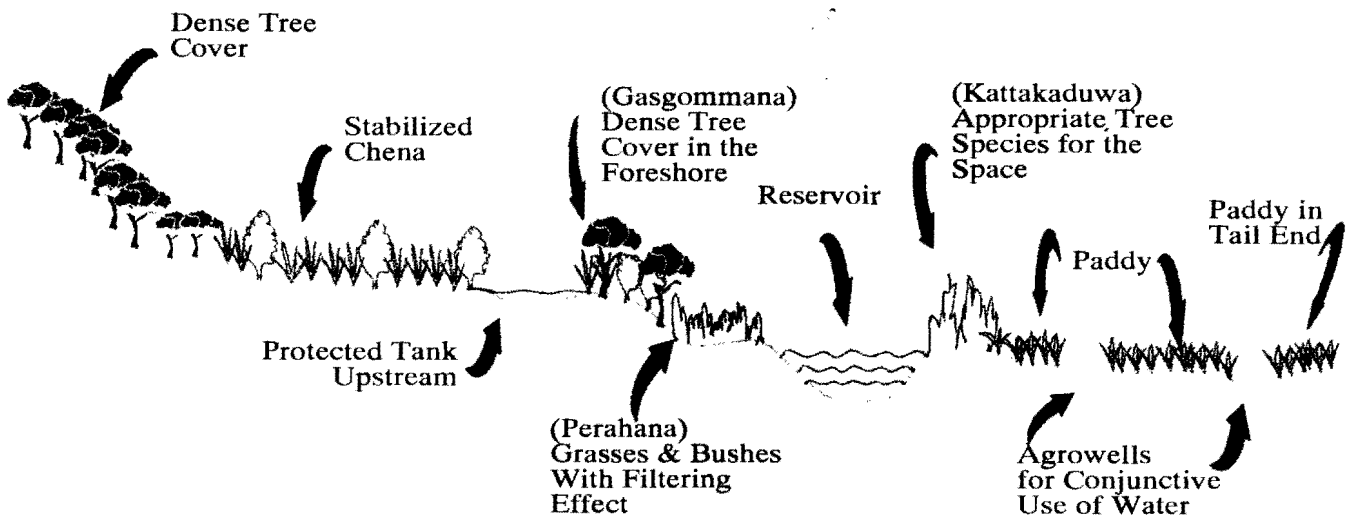
### HURULUWEWA WATERSHED

For the purpose of SCOR, Huruluwewa watershed is defined as the area covered by the catchment of Huruluwewa tank up to Habarana wewa, water-spread area of Huruluwewa reservoir, and the area between Huruluwewa dam and the point of confluence of Yan Oya with Adappan Oya. The latter includes the command area under Huruluwewa reservoir, highlands, and drainage area. The watershed also consists of a large number of minor tanks.

Current Typical Landscape in Huruluwewa Watershed



SCOR Perception of Future Landscape in Huruluwewa Watershed



It is actually the upper part of Yan Oya watershed. It falls within the Divisional Secretariat areas of Galenbindunawewa, Palugaswewa, Kekirawa and Horowpatana. The total area covered is about 47,700 ha. The important present land uses are chena, irrigated agriculture, forests, homestead and degraded areas. The main problems are lack of water in the Yala and weak management in Maha, degradation of the resource base and unorganized resource users.

### Geographical areas of work

A few tank cascade systems and micro-watersheds within the main Huruluwewa watershed have been identified for intervention in the initial two years. These specific areas have been initially identified by the Land Use Policy Planning Division (LUPPD) of the Ministry of Lands, on the basis of scientific studies undertaken in the watersheds.

The main geographic areas identified for the implementation of SCOR activities in Huruluwewa are listed below:

1. Meegaswewa sub-watershed
2. Mahadivulwewa sub-watershed
3. Kiulekadawewa sub-watershed
4. Drainage area of Huruluwewa irrigation system from Nikawewa upto Ilukwewa anicut
5. Huruluwewa command area
6. Tract 6 area of Huruluwewa including homesteads.

In addition to the above six areas, the Mahaweli feeder canal from Lenadora to Habaranawewa has been included as a special area of intervention by the SCOR.

Some interventions such as integrated planning and coordination will not be confined to any geographic area, but will spread over the entire watershed and the province.

### Themes for interventions

- Stabilization of chena and encroached state lands
- Regeneration of tank eco-systems
- Intergrated water management in Huruluwewa watershed
- Sharing resources for improving homesteads
- Ground water development and management
- Land consolidation in minor tanks
- Intergrated planning and coordination
- Organizing user groups/user

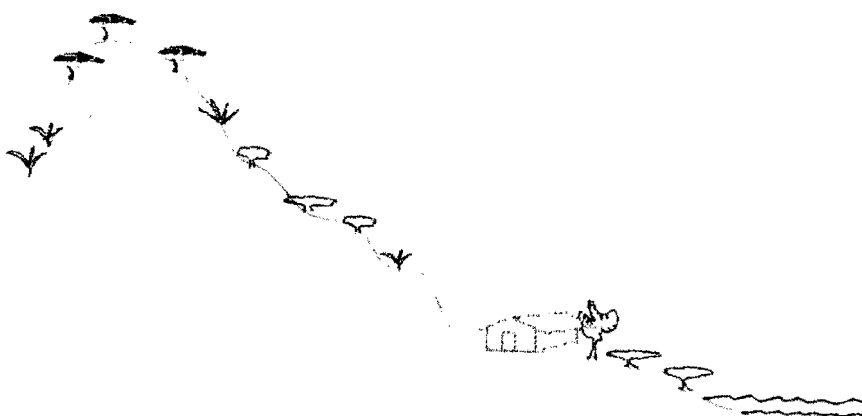
organizations/ sub-user councils for production, protection and related services

- Research with no interventions.

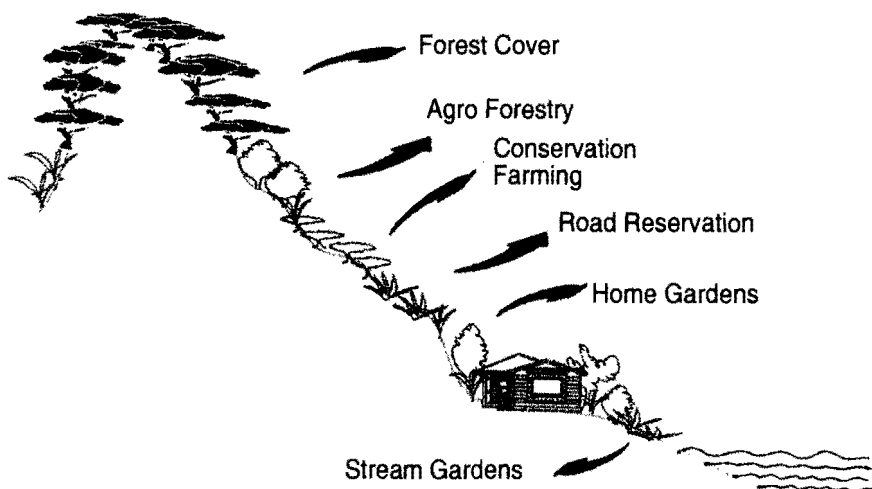
### UPPER NILWALA WATERSHED

The entire Nilwala watershed covers a total area of 146,280 ha. It comprises of the upper Nilwala watershed selected for initial interventions by SCOR, and the lower watershed, including the area falling under the Nilwala Ganga Flood Protection and Drainage Scheme (NFPDS). SCOR will not have any intervention in the lower watershed, including the area covered by the NFPDS during the first phase. The area selected within

### A Typical Landscape Profile Calling for Intervention in Upper Nilwala Watershed



### Anticipated Change in Landscape After SCOR Intervention



the upper watershed for SCOR intervention falls within the Divisional Secretariat areas of Kotapola, Pasgoda, Neluwa, and Pitabeddara. However, SCOR activities during the first phase will be mainly within the first three DS divisions.

The main land use types within the upper watershed are protected forest, degraded forest, highlands and homesteads covered with tea, paddy, rubber, coconut and fruit trees. Tea is the dominant crop. A significant area of the watershed is degraded.

### Geographical Area of Work

The following four sub-watersheds were initially identified by the Land Use Policy Planning Division.

- Aninkanda ● Millawa Ela
- Diyadawa-Tenipita (Deniyaya)
- Horagala

### Themes for interventions:-

- Sharing management of land and water resources
- Sharing resources for improving homesteads
- Improving tea/paddy culture
- Organizing groups for production, protection and related services
- Intergrated planning and coordination
- Research with no intervention

### DIARY OF EVENTS

IN 1992	DATE
SCOR Conceptualization	May
Beginning of participatory design	May
End of participatory design	30th Sep.
IN 1993	DATE
GOSL signs agreement	22nd May
Agreement between USAID and IIMI	27th May
SCOR Inauguration	23rd Sep.
Team building workshop	23rd Sep.
Simulation Planning	10th October
Inauguration of Huruluwewa office	30th Sep.
Inauguration of Nilwala office	11th October

IN 1993	DATE
Commencement of implementation	24th Sep.
First NSC meeting	17th Sep.
PSC meetings North Central	18th Nov.
Southern-	22nd Nov.
IN 1994	DATE
Visit by a delegation from FORD Foundation accompanied by Director-General of IIMI	12th Feb.
Tree planting in tank foreshore by people of Huruluwewa/ Mahadivulwewa	27th Feb.
Participatory Resource Use Mapping in Nilwala	Feb.
Participatory Resource Use Mapping in Huruluwewa Feeder Canal	March



*Participatory Resource use mapping in Nilwala*

### “COLLABORATION” AS A DRIVING FORCE

SCOR teams will observe processes currently in operation and undertake constraint analysis on the issues relating to the sustainable productivity of land and water resources along with officials of the line agencies, local leaders, NGOs and institutions of the private sector in a collaborative mode.

SCOR teams believe that such collaboration is of utmost importance for deliberating on joint action in watershed resources management.

SCOR records with great appreciation the current level of collaboration from the parties involved at national, provincial, divisional, and field levels. SCOR will highlight specific cases of such collaboration in the future issues of this Newsletter.

the farmers of Huruluwewa scheme, and an agro-wells map has been prepared. The 13 representatives of the distributory canal level farmer organizations of the Huruluwewa Project Management Committee, coordinated the agro-wells surveys of their respective areas, by

A sample of 30 agro-wells scattered over the Huruluwewa watershed has been selected for detailed monitoring. The daily water levels of these sample wells are now being monitored by voluntary farmers and local youth under the guidance of our researchers. The local youth and farmers are very enthusiastic of the study and they volunteered to monitor the daily water levels and keep records of farm inputs and outputs as well as water pumping details, when the cultivation season begins. The preliminary results of the study will be reported in the forthcoming newsletters.



*Simulation Planning Workshop for Nilwala*

## **AGRO-WELL STUDY IN HURULUWEWA WATERSHED**

Exploitation of ground water through shallow dug wells for agricultural production has become very popular in the North Central Province, particularly in the Huruluwewa watershed. Dug wells are extensively used by the Dry Zone farmers for irrigating cash crops.

SCOR is now carrying out a participatory action research study in Huruluwewa watershed to make recommendations for the future use of shallow ground water through dug wells in an economically profitable and environmentally sustainable manner. In order to achieve these objectives, the study will assess the shallow ground water potential and characterize the existing agro-wells in terms of both water use, agricultural performance and economic profitability.

The spatial distribution of the agro-wells in the catchment, command, highlands and the drainage areas of Huruluwewa have been field-surveyed by our research team and

collecting the relevant data and mapping the locations of each and every agro-well very accurately on the respective blocking out plans of the Huruluwewa scheme.



*Field Observation and meetings by NSC members*

## **SCOR NATIONAL STEERING COMMITTEE IN SESSION AT THE WATERSHED**

The third meeting of the National Steering Committee (NSC) was held on 6 March, 1994 at the Divisional Secretariat of Palugswewa. NSC comprises of Heads of key government agencies administering the land and water resources of the country and Representatives of USAID and IIMI. The NSC is chaired by the Secretary, Ministry of Forestry, Irrigation and Mahaweli Development.